

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered). Please AMEND claims 1, 12, 16, 34, 36, 38, 39 and 40 and ADD new claim 41 in accordance with the following:

1. (currently amended) Method for querying a database with database contents with a database structure comprising:

placing a query in a query structure that differs from the database structure,

wherein the query structure and the database structure ~~reference are derived from~~ a standard structure ~~with by using~~ a reference logic, and wherein the reference logic is one of:

wherein the standard structure is described by standard descriptors,

wherein the query structure and the database structure are described by at least one of the standard descriptors and special descriptors,

wherein the special descriptors and the content of the special descriptors are derived from at least one of the standard descriptors by using the reference logic,

~~transmitted together with transmitting~~ the query to the database;

making the reference logic available to the database by at least one of:

transmitting at least part of the reference logic together with the query; and

~~the reference logic being~~ at least partially transmitted together with the query; present in the database; and partially present in the database,

generating a query result for a standard descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown standard descriptor and a special descriptor of the database that is associated with the reference logic, or

generating a query result for a special descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown special descriptor and the standard descriptor of the database that is associated with the reference logic.

~~wherein the standard structure is described by standard descriptors, and the query structure and the database structure are described by at least one of the standard descriptors~~

~~and more special descriptors, wherein the more special descriptors reference the standard descriptors with the reference logic.~~

2. (original) Method as claimed in Claim 1, wherein the reference logic is stored in the database.

3. (cancelled)

4. (previously presented) Method as claimed in Claim 1, wherein standard descriptors present in the query structure are compared with the standard descriptors of the database, wherein identical standard descriptors are evaluated for the query.

5. (previously presented) Method as claimed in Claim 1, wherein the special descriptors present in the query structure are compared with the special descriptors of the database, wherein identical special descriptors are evaluated for the query.

6. (previously presented) Method as claimed in Claim 1, wherein dissimilar special descriptors are reviewed to determine whether a computation logic is present in the database, so that a respective special descriptor of the database structure can be computed directly from the corresponding special descriptor of the query structure by means of the computation logic.

7. (original) Method as claimed in Claim 6, wherein the computation logic is stored in the database.

8. (previously presented) Method as claimed in Claim 7, wherein, for dissimilar special descriptors for which no computation logic is present, a review is made to determine whether a reference logic to standard descriptors is at least partially present in the database.

9. (previously presented) Method as claimed in Claim 7, wherein, for dissimilar special descriptors for which no computation logic and/or no reference logic is present, a review is made to determine whether the reference logic was transmitted together with the query.

10. (previously presented) Method as claimed in Claim 7, wherein atomic elements defining the information and/or link of a special descriptor are used as the computation logic.

11. (original) Method as claimed in Claim 10, wherein the atomic elements used are semantic, physical and linking atomic elements to define the semantic meaning, the physical memory structure, and the link between memory structure and semantics.

12. (currently amended) Computer readable media embodying a database structure to execute a method comprising:

placing a query in a query structure that differs from the database structure,

wherein the query structure and the database structure are derived from a standard structure by using a reference logic,

wherein the standard structure is described by standard descriptors,

wherein the query structure and the database structure are described by at least one of the standard descriptors and special descriptors,

wherein the special descriptors and the content of the special descriptors are derived from at least one of the standard descriptors by using the reference logic,

transmitting the query to the database;

making the reference logic available to the database by at least one of:

transmitting at least part of the reference logic together with the query; and

the reference logic being at least partially present in the database,

generating a query result for a standard descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown standard descriptor and a special descriptor of the database that is associated with the reference logic, or

generating a query result for a special descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown special descriptor and the standard descriptor of the database that is associated with the reference logic.

~~placing a query in a query structure that differs from the database structure wherein the query structure and the database structure reference a standard structure with a reference logic and wherein the reference logic is one of:~~

~~transmitted together with the query;~~

~~partially transmitted together with the query;~~

~~present in the database; and~~

~~partially present in the database;~~

~~wherein the standard structure is described by standard descriptors, and the query structure and the database structure are described by at least one of the standard descriptors and more special descriptors, wherein the more special descriptors reference the standard descriptors with the reference logic.~~

13. (original) Computer readable media as claimed in Claim 12, wherein the reference logic is stored in the database.

14. (cancelled)

15. (previously presented) Computer readable media as claimed in Claim 12, wherein standard descriptors present in the query structure are compared with the standard descriptors of the database, wherein identical standard descriptors are evaluated for the query.

16. (currently amended) Computer readable media as claimed in Claim 1412, wherein the special descriptors present in the query structure are compared with the special descriptors of the database, wherein identical special descriptors are evaluated for the query.

17. (previously presented) Computer readable media as claimed in Claim 12, wherein dissimilar special descriptors are reviewed to determine whether a computation logic is present in the database, so that a respective special descriptor of the database structure can be computed directly from the corresponding special descriptor of the query structure by means of the computation logic.

18. (original) Computer readable media as claimed in Claim 17, wherein the computation logic is stored in the database.

19. (previously presented) Computer readable media as claimed in Claim 18, wherein, for dissimilar special descriptors for which no computation logic is present, a review is made to determine whether a reference logic to standard descriptors is at least partially present in the database.

20. (previously presented) Computer readable media as claimed in Claim 18, wherein, for dissimilar special descriptors for which no computation logic and/or no reference

logic is present, a review is made to determine whether the reference logic was transmitted together with the query.

21. (previously presented) Computer readable media as claimed in Claim 18, wherein atomic elements defining the information and/or link of a special descriptor are used as the computation logic.

22. (original) Computer readable media as claimed in Claim 21, wherein the atomic elements used are semantic, physical and linking atomic elements to define the semantic meaning, the physical memory structure, and the link between memory structure and semantics.

23. Cancelled.

24. Cancelled.

25. Cancelled.

26. Cancelled.

27. Cancelled.

28. Cancelled.

29. Cancelled.

30. Cancelled.

31. Cancelled.

32. Cancelled.

33. Cancelled.

34. (currently amended) A method of querying a plurality of databases, comprising:

submitting a query in an original query structure to a plurality of databases; and separately revising the original query structure at each of the databases, to produce query structures searchable within the respective databases,

wherein the original query structure is revised in a decentralized fashion, without middleware,

wherein the query structure and the database structure are derived from a standard structure by using a reference logic,

wherein the standard structure is described by standard descriptors,

wherein the query structure and the database structure are described by at least one of the standard descriptors and special descriptors,

wherein the special descriptors and the content of the special descriptors are derived from at least one of the standard descriptors by using the reference logic,

transmitting the query to the database;

making the reference logic available to the database by at least one of:

transmitting at least part of the reference logic together with the query; and

the reference logic being at least partially present in the database,

generating a query result for a standard descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown standard descriptor and a special descriptor of the database that is associated with the reference logic, or generating a query result for a special descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown special descriptor and the standard descriptor of the database that is associated with the reference logic.

~~wherein a standard structure is described by standard descriptors, and the query structure and a database structure are described by at least one of the standard descriptors and more special descriptors, wherein the more special descriptors reference the standard descriptors with a reference logic, and~~

~~wherein the special descriptors present in the query structure are compared with the special descriptors of the database, wherein identical special descriptors are evaluated for the query.~~

35. (cancelled)

36. (currently amended) A method of querying a plurality of databases, comprising:
submitting a query to a plurality of databases, the query containing information fields not

contained in all of the databases; and

separately searching for the query at the plurality of databases, each database using a reference logic at the database to infer a relationship between fields in the database and fields in the query not contained in the database,

wherein each database infers the relationship in a decentralized fashion, without middleware,

wherein structure of the query and structure of the database are derived from a standard structure by using a reference logic,

wherein the standard structure is described by standard descriptors,

wherein the structure of the query and the structure of the database are described by at least one of the standard descriptors and special descriptors,

wherein the special descriptors and the content of the special descriptors are derived from at least one of the standard descriptors by using the reference logic,

transmitting the query to the database;

making the reference logic available to the database by at least one of:

transmitting at least part of the reference logic together with the query; and

the reference logic being at least partially present in the database,

generating a query result for a standard descriptor of the query structure that is unknown to the structure of the database by using the reference logic associated with the unknown standard descriptor and a special descriptor of the database that is associated with the reference logic, or

generating a query result for a special descriptor of the structure of the query that is unknown to the structure of the database by using the reference logic associated with the unknown special descriptor and the standard descriptor of the database that is associated with the reference logic.

~~wherein a standard structure is described by standard descriptors, and a query structure and a database structure are described by at least one of the standard descriptors and more special descriptors, wherein the more special descriptors reference the standard descriptors with the reference logic, and~~

~~wherein the special descriptors present in the query structure are compared with the special descriptors of the database, wherein identical special descriptors are evaluated for the query.~~

38. (currently amended) A method of querying a plurality of databases, comprising: submitting a query in an original query structure to a plurality of databases; and separately revising the original query structure at each of the databases, independently of middleware, to produce query structures searchable within the respective databases,
wherein the query structure and the database structure are derived from a standard structure by using a reference logic,
wherein the standard structure is described by standard descriptors,
wherein the query structure and the database structure are described by at least one of the standard descriptors and special descriptors,
wherein the special descriptors and the content of the special descriptors are derived from at least one of the standard descriptors by using the reference logic,
transmitting the query to the database;
making the reference logic available to the database by at least one of:
transmitting at least part of the reference logic together with the query; and
the reference logic being at least partially present in the database,
generating a query result for a standard descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown standard descriptor and a special descriptor of the database that is associated with the reference logic, or
generating a query result for a special descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown special descriptor and the standard descriptor of the database that is associated with the reference logic.
~~wherein a standard structure is described by standard descriptors, and the query structure and a database structure are described by at least one of the standard descriptors and more special descriptors, wherein the more special descriptors reference the standard descriptors with a reference logic, and~~
~~wherein the special descriptors present in the query structure are compared with the special descriptors of the database, wherein identical special descriptors are evaluated for the query.~~

39. (currently amended) Method for querying a database with database contents with a database structure comprising:
placing a query in a query structure that differs from the database structure wherein the

query structure and the database structure reference a standard structure with a reference logic and wherein the reference logic is one of:

transmitted together with the query;

partially transmitted together with the query; present in the database; and

partially present in the database,

wherein the special descriptors and the content of the special descriptors are derived from at least one of the standard descriptors by using the reference logic,

generating a query result for a standard descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown standard descriptor and a special descriptor of the database that is associated with the reference logic, or

generating a query result for a special descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown special descriptor and the standard descriptor of the database that is associated with the reference logic.

~~wherein the standard structure is described by standard descriptors, and the query structure and the database structure are described by at least one of the standard descriptors and more special descriptors, wherein the more special descriptors reference the standard descriptors with the reference logic.~~

40. (currently amended) Computer readable media embodying a database structure to execute a method comprising:

placing a query in a query structure that differs from the database structure wherein the query structure and the database structure reference a standard structure with a reference logic and wherein the reference logic is one of:

transmitted together with the query;

partially transmitted together with the query; present in the database; and

partially present in the database,

wherein the special descriptors and the content of the special descriptors are derived from at least one of the standard descriptors by using the reference logic,

generating a query result for a standard descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown standard descriptor and a special descriptor of the database that is associated with the reference logic, or

generating a query result for a special descriptor of the query structure that is unknown to the database structure by using the reference logic associated with the unknown special

descriptor and the standard descriptor of the database that is associated with the reference logic.

~~wherein the standard structure is described by standard descriptors, and the query structure and the database structure are described by at least one of the standard descriptors and more special descriptors, wherein the more special descriptors reference the standard descriptors with the reference logic.~~

41. (new) A method for querying a database, comprising:

placing a query in a query structure, one of the query and the database containing a non-standard search field, the other of the query and the database containing a standard search field, the standard search field having a relationship with the non-standard search field which relationship is defined by a reference logic;

transmitting the query to the database;

making the reference logic available to the database by at least one of:

transmitting the reference logic together with the query; and

storing the reference logic in association with the database; and

using the reference logic at the database to transform the query structure into a transformed structure having a search field contained in the database,

wherein one non-standard search field is derived from at least two standard search fields using the reference logic and/or one standard search field is derived from at least two non-standard search fields using the reference logic.